

1 IN THE CLAIMS:

5 1. A composition comprising:
an acrylic copolymer formed from a plurality of monomers that comprises, on a percent-
by-weight basis, based on the total weight of all monomers,
about 5 to 90% soft acrylic monomer(s),
about 90 to 5% hard acrylic monomer(s),
about 1 to 5% hydroxy-lower organic (meth)acrylate(s),
10 about 0.1 to 0.5% multifunctional monomer(s),
about 0.1 to 2% acid monomer(s), and
about 0.5 to 2% wet abrasion resistance-enhancing monomer(s).

15 2. A composition as recited in claim 1, wherein the wet abrasion resistance-
enhancing monomer(s) has at least one ureido functionality.

20 3. A composition as recited in claim 2, wherein the wet abrasion resistance-
enhancing monomer(s) is selected from the group consisting of 3-allyloxy-2-
hydroxypropylaminoethylethyleneurea and N-(methacrylamidoethyl)ethyleneurea.

25 4. A composition as recited in claim 1, wherein the plurality of monomers consists
essentially of butyl acrylate, methyl methacrylate, hydroxypropyl acrylate, tetraethylene glycol
diacrylate, methacrylic acid, and 3-allyloxy-2-hydroxypropylaminoethylethylene urea.

30 5. A composition as recited in claim 4, wherein the plurality of monomers is
compolymerized in the presence of a reactive surfactant.

35 6. A composition as recited in claim 5, wherein the reactive surfactant is styrene
vinyl sulfonate.

7. A composition as recited in claim 4, further comprising a particulate filler and a
mordant.

1 8. A composition as recited in claim 7, wherein the particulate filler is selected from the group consisting of silica gel, colloidal silica, titanium dioxide, magnesium carbonate, silicic acid, clays, zeolites, alumina, and mixtures thereof.

5 9. A composition as recited in claim 7, wherein the mordant comprises at least one cationic polymer.

10 10. A composition as recited in claim 7, wherein said at least one cationic polymer is poly(diallyldimethylammonium chloride) or poly(diallyldimethylammonium dimethylsulfate).

15 11. A composition as recited in claim 7, wherein said at least one cationic polymer is a copolymer of one or more hydroxyalkyl (meth)acrylates and a quaternary ammonium salt.

20 12. A composition as recited in claim 11, wherein said copolymer is a copolymer of hydroxyethyl acrylate, hydroxyethyl methacrylate, and a quaternary salt of dimethylaminoethyl acrylate.

25 13. A composition as recited in claim 7, wherein the mordant comprises poly(diallyldimethylammonium chloride) and a copolymer of one or more hydroxyalkyl (meth)acrylates and a quaternary ammonium salt.

30 14. A composition as recited in claim 1, further comprising a particulate filler and a mordant.

35 15. A composition as recited in claim 14, wherein the particulate filler is selected from the group consisting of silica gel, colloidal silica, titanium dioxide, magnesium carbonate, silicic acid, clays, zeolites, alumina, and mixtures thereof.

40 16. A composition as recited in claim 14, wherein the mordant comprises at least one cationic polymer.

1 17. A composition as recited in claim 14, wherein the mordant comprises poly(diallyldimethylammonium chloride) and a copolymer of one or more hydroxyalkyl (meth)acrylates and a quaternary ammonium salt.

5 18. A composition as recited in claim 1, wherein the acrylic copolymer is formed by emulsion polymerization.

10 19. A composition as recited in claim 1, wherein the plurality of monomers includes a positive amount up to about 50% by weight of one or more styrenic monomers.

15 20. A composition as recited in claim 19, wherein said one or more styrenic monomers are selected from the group consisting of styrene, α -methyl styrene, and divinyl benzene.

20 21. A composition, comprising:
 an acrylic copolymer formed from a plurality of monomers, including at least one wet abrasion resistance-enhancing monomer;
 a particulate filler; and
 a mordant.

25 22. A composition as recited in claim 21, wherein the plurality of monomers includes at least one soft acrylic monomer and one or more monomers selected from the group consisting of hard acrylic monomers, acrylamido monomers, styrenic monomers, allylic monomers, vinylic monomers, maleic and fumaric monomers, acid monomers, and hydroxy-lower organic (meth)acrylate monomers.

30 23. A composition as recited in claim 22, wherein the plurality of monomers further includes at least one multifunctional monomers.

35 24. A composition as recited in claim 22, wherein the plurality of monomers consists essentially of butyl acrylate, methyl methacrylate, hydroxypropyl acrylate, tetraethylene glycol acrylate, methacrylic acid, and a ureido-functional monomer.

1 25. A composition as recited in claim 24, wherein the plurality of monomers is
compolymerized in the presence of a reactive surfactant.

5 26. A composition as recited in claim 21, wherein the particulate filler is selected
from the group consisting of silica gel, colloidal silica, titanium dioxide, magnesium carbonate,
silicic acid, clays, zeolites, alumina, and mixtures thereof.

10 27. A composition as recited in claim 21, wherein the mordant comprises at least one
cationic polymer.

15 28. A composition as recited in claim 21, wherein the mordant comprises
poly(diallyldimethylammonium chloride) and a copolymer of one or more hydroxyalkyl
(meth)acrylates and a quaternary ammonium salt.

20 29. A composition as recited in claim 21, further comprising a thickener.

25 30. A composition as recited in claim 29, wherein the thickener is selected from the
group consisting of starch, polyvinyl alcohol, polyvinyl pyrrolidone, cellulosic polymers, and
mixtures thereof.

30 31. A composition as recited in claim 21, further comprising a crosslinker.

35 32. A composition as recited in claim 31, wherein the crosslinker is selected from the
group consisting of polyaziridine and melamine formaldehyde.

 33. A composition as recited in claim 21, coated on a substrate.

 34. A composition as recited in claim 21, wherein the plurality of monomers includes
one or more styrenic monomers.

 35. A composition as recited in claim 34, wherein said one or more styrenic
monomers are selected from the group consisting of styrene, α -methyl styrene, and divinyl
benzene.

1 36. An ink-receptive construction, comprising:
 a substrate coated with a composition, said composition comprising
 (i) an acrylic copolymer formed from a plurality of monomers, including at least
5 one wet abrasion resistance-enhancing monomer;
 (ii) a particulate filler; and
 (iii) a mordant.

10 37. A composition as recited in claim 36, wherein the plurality of monomers further
 includes at least one soft acrylic monomer and one or more monomers selected from the group
 consisting of hard acrylic monomers, acrylamido monomers, styrenic monomers, allylic
 monomers, vinylic monomers, maleic and fumaric monomers, acid monomers, and hydroxy-
 lower organic (meth)acrylate monomers.

15 38. A composition as recited in claim 36, wherein the plurality of monomers further
 includes at least one multifunctional monomer.

20 39. A composition as recited in claim 36, wherein the plurality of monomers consists
 essentially of butyl acrylate, methyl methacrylate, hydroxypropyl acrylate, tetraethylene glycol
 acrylate, methacrylic acid, and a ureido-functional monomer.

25 40. A composition as recited in claim 36, wherein the plurality of monomers is
 compolymerized in the presence of a reactive surfactant.

30 41. A composition as recited in claim 36, wherein the particulate filler is selected
 from the group consisting of silica gel, colloidal silica, titanium dioxide, magnesium carbonate,
 silicic acid, clays, zeolites, alumina, and mixtures thereof.

35 42. A composition as recited in claim 36, wherein the mordant comprises at least one
 cationic polymer.

 43. A composition as recited in claim 42, wherein the mordant comprises
 poly(diallyldimethylammonium chloride) and a copolymer of one or more hydroxyalkyl
 (meth)acrylates and a quaternary ammonium salt.

1 44. A composition as recited in claim 36, wherein the composition further comprises
a thickener.

5 45. A composition as recited in claim 44, wherein the thickener is selected from the
group consisting of starch, polyvinyl alcohol, polyvinyl pyrrolidone, cellulosic polymers, and
mixtures thereof.

10 46. A composition as recited in claim 36, wherein the composition further comprises
a crosslinker.

 47. A composition as recited in claim 46, wherein the crosslinker is selected from the
group consisting of polyaziridine and melamine formaldehyde.

15 48. An ink-receptive construction as recited in claim 36 wherein the substrate is
selected from the group consisting of paper, film, cardboard, corrugated board, and fabric.

20 49. A composition comprising:
 an acrylic copolymer formed from a plurality of monomers that comprises, on a
percent-by-weight basis, based on the total weight of all monomers,
 about 20 to 60% butyl acrylate,
 about 30 to 70% methyl methacrylate,
 about 1 to 5% hydroxypropyl acrylate,
 about 0.1 to 0.5% triethylene glycol diacrylate,
25 about 0.1 to 2% methacrylic acid, and
 about 0.1 to 2% copolymerizable monomer having at least one ureido
functionality.